

What is claimed is:

1. A method for automatically controlling a length of a projection screen,  
comprising:  
    disposing a code stripe on at least a side of the projection screen;  
5       providing an auto-controlled hoister at a suitable position of the  
projection screen, the hoister having at least a roller to move the  
projection screen;  
    employing at least a detector or a magnetic reading device of the  
hoister to detect or read the code stripe; and  
10       converting a detected or read signal of the code stripe into digital  
data and comparing the digital data with data stored in a storage device of  
the auto-controlled hoister;  
    wherein the auto-controlled hoister is capable of automatically adjusting  
the length of the projection screen exactly via disposing the code stripe  
15       on the side of the projection screen.
2. The method as claimed in claim 1, wherein the data stored in the storage  
device correspond to the length of the projection screen.
3. The method as claimed in claim 1, wherein the length of the projection  
screen is preset in the auto-controlled hoister.
- 20   4. The method as claimed in claim 1, wherein the length of the projection  
screen is directly adjusted by a wireless remote controller via controlling  
the auto-controlled hoister.
5. A apparatus for automatically controlling a length of a projection screen,  
wherein a projector is placed at a suitable distance from the apparatus,  
25       the apparatus comprising:  
    a screen-controlling apparatus having an auto-controlled hoister, a  
detector and a storage device; and

a projection screen having a code stripe disposed on at least a side thereof.

6. The apparatus as claimed in claim 5, wherein the screen-controlling apparatus further has a shell body to store the projection screen.

5 7. The apparatus as claimed in claim 5, wherein the auto-controlled hoister has a first roller and the projection screen is wound on an outside of the first roller for storage.

8. The apparatus as claimed in claim 5, wherein a backside of the projection screen is a figure.

10 9. The apparatus as claimed in claim 8, wherein the figure is scenery.

10. The apparatus as claimed in claim 8, wherein the figure is a picture for beautifying an environment or expressing an ideology.

11. The apparatus as claimed in claim 5, wherein a backside of the projection screen is a surface of a whiteboard.

15 12. The apparatus as claimed in claim 5, wherein the screen-controlling apparatus further includes a second roller, the second roller is disposed at a position opposite a first roller, and the projection screen is a ring and surrounds outsides of the first roller and the second roller so as to be moved circularly.

20 13. The apparatus as claimed in claim 12, wherein the screen-controlling apparatus further includes a surface of a whiteboard or a figure disposed on a same side.

25 14. The apparatus as claimed in claim 12, wherein the screen-controlling apparatus further includes a third roller and a fourth roller, the third roller and the fourth roller are disposed between the first roller and the second roller, and the projection screen is a ring and surrounds outsides of the first roller and the second roller and outsides of the third roller

and the fourth roller so as to be moved circularly.

15. The apparatus as claimed in claim 14, wherein the screen-controlling apparatus further includes a surface of a whiteboard or a figure disposed on a same side.

5 16. The apparatus as claimed in claim 11, wherein the whiteboard has a digital whiteboard scanner.

17. The apparatus as claimed in claim 13, wherein the whiteboard has a digital whiteboard scanner.

10 18. The apparatus as claimed in claim 15, wherein the whiteboard has a digital whiteboard scanner.

19. The apparatus as claimed in claim 5, wherein the screen-controlling apparatus further includes a first optical detector and one end of the projection screen has a second optical detector; wherein:

15 when a light is projected on the projection screen from the projector and the projection screen is moved downward, the first optical detector is used to detect a first lightness value for reference and the second optical detector is used to detect a second lightness value; and

20 when the second lightness value is equal to the first lightness value, the auto-controlled hoister stops moves the projection screen so that the length of the projection screen is automatically controlled.